



U.S. GOVERNMENT SUPPORT TO COMBAT AVIAN AND PANDEMIC INFLUENZA

Since sub-Saharan Africa's first reported outbreak of highly pathogenic avian influenza (HPAI) H5N1 in Nigeria in February 2006, the disease has spread to birds in Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Djibouti, Ghana, Niger, Sudan, and Togo. As of September 2008, the World Health Organization (WHO) had confirmed one human fatality in Nigeria and one non-fatal human case in Djibouti.

The United States partners with governments, regional entities, and international organizations such as the World Health Organization (WHO), the Food and Agriculture Organization (FAO), the United Nations International Children's Emergency Fund (UNICEF), and the World Organization for Animal Health (OIE) to assist in responding to HPAI H5N1 outbreaks and to prepare for a possible human pandemic.

As of December 2007, the United States had allocated \$61.6 million in sub-Saharan Africa as follows:

- \$35.5 million to bilateral assistance to 24 countries;
- \$15.7 million to regional assistance programs;
- \$7.1 million to support the regional disease detection site in Kenya;
- \$2.3 million for WHO regional activities and \$1 million for FAO regional emergency response.

Sub-Saharan countries that have received some U.S. bilateral or regional assistance, training or commodities include Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, the Democratic Republic of the Congo, the Republic of the Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, the Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe.

The U.S. Agency for International Development (USAID); the U.S. Department of Agriculture (USDA); the U.S. Department of Health and Human Services (HHS), including the Assistant Secretary for Preparedness and Response (ASPR), the Centers for Disease Control and Prevention (CDC), and the National Institutes of Health (NIH); the U.S. Department of Defense (DoD), including the DoD-Global Emerging Infection Surveillance and Response System (DoD-GEIS), the U.S. Naval Medical Research Unit No. 3 (NAMRU-3), the U.S. Army Medical Research Unit – Kenya (USAMRU-K), and the Center of Disaster and Humanitarian Assistance Medicine (CDHAM); the U.S. Department of State (DOS); and the Broadcasting Board of Governors (BBG) are building capacity

in animal and human health sectors through preparedness and response planning; strengthening laboratories; technical medical assistance; increasing public awareness; enhancing disease surveillance, detection and reporting systems; and deploying personal protective equipment (PPE) and non-pharmaceutical commodities for surveillance and response.

U.S. ASSISTANCE FOR PREPAREDNESS AND COMMUNICATION INCLUDES:

- Carrying out risk communications and public information activities in 32 countries (USAID, HHS/CDC, DOS);
- Placing regional avian influenza advisors in Eastern, Southern and Western Africa and veterinarians in Nigeria, Senegal, and Kenya to assist in strengthening regional and national capacities (USAID);
- Assigning HPAI control experts to give technical assistance bilaterally and through the FAO (USDA);
- Strengthening private sector participation in safe poultry production and marketing practices through workshops in Zambia and Togo (USAID);
- Conducting pandemic preparedness tabletop simulations to practice national and cross-border preparedness planning (USAID), and for HPAI response in Senegal with FAO (USDA);
- Promoting private-public partnerships on animal health through African officials attending U.S. Animal Health Association meetings and assisting three West African countries to participate in the U.S. National Poultry Improvement Plan (USDA);
- Developing village and smallholder poultry production training curriculum for 500 veterinarians and community workers on avian influenza prevention and control measures in Uganda, Kenya, Tanzania, and Ghana (USAID);
- Co-sponsoring with FAO and OIE a laboratory network workshop for 16 countries in West and Central Africa (USDA);
- Sponsoring surveillance network training for 25 veterinarians (USDA);
- Providing information on avian and pandemic influenza to more than 200 journalists from 28 sub-Saharan African nations through media workshops (DOS, BBG, HHS/CDC, USAID);
- Increasing public knowledge of avian influenza via Voice of America (VOA) broadcasts throughout Africa, and VOA web pages in English, French, Hausa and Kirundi (DOS, BBG, USAID);
- Supporting participation from Ethiopia, Kenya, Lesotho, Nigeria, South Africa and Tanzania in an educational project on infectious diseases, including avian and pandemic influenza (DOS);

- Developing an open-access African avian influenza web site to increase information sharing and knowledge management (USAID);
- Delivering an epidemiology workshop for 21 African countries (USDA);
- Distributing more than 25,000 information packets to build awareness of avian influenza and prevention methods (USAID);
- Delivering a vaccination options seminar for 26 countries (USDA);
- Sponsoring a seminar for 50 poultry producers from West Africa (USDA);
- Providing Incident Command System (ICS) training for eight West African countries and Ethiopia and biosecurity training for 30 participants in Mali (USDA); and
- Co-hosting a symposium on “Public Health Codes of Ethics for Pandemic Influenza Detection and Control in Africa” with the African Field Epidemiology Network for more than 60 participants from African and Arab countries (HHS/CDC).

U.S. SURVEILLANCE AND DETECTION EFFORTS INCLUDE:

- Expanding surveillance and response capacity through CDC’s Global Disease Detection (GDD) Center in Kenya and USAMRU-K, as well as through Africa-based Institut Pasteur laboratories (DoD-GEIS/USAMRU-K, HHS/CDC);
- Launching the Global Avian Influenza Network for Surveillance (GAINS) in coordination with USDA and the U.S. Geological Survey to monitor avian influenza viruses in wild birds, track genetic changes and increase transparency in disease information throughout Africa (USAID, HHS/ASPR/CDC);
- Holding a workshop on molecular diagnostics for avian influenza for six countries (DoD-GEIS/NAMRU 3);
- Training joint laboratory/epidemiology teams from 32 African countries in laboratory and surveillance methods (HHS/CDC);
- Designing and testing compatible, open-source animal health information systems to improve avian influenza reporting, surveillance and epidemiologic analysis in Rwanda, Uganda and Ghana (USAID);
- Supporting a regional veterinary laboratory network meeting for enhanced HPAI surveillance in West and Central Africa in cooperation with the African Union, the OIE and FAO (USDA);
- Providing an expert to assess veterinary laboratories in Côte d’Ivoire, Senegal, Nigeria and Uganda (USDA);
- Training and supporting training for officials, veterinarians, epidemiologists and laboratory diagnosticians from 32 sub-Saharan African nations (USDA);
- Strengthening laboratory capacity through training, equipment and commodities such as diagnostic equipment, reagents, rapid test kits, and disinfectants (USDA, USAID, DoD-GEIS/USAMRU-K);

- Delivering real-time polymerase chain reaction (RT-PCR) machines for rapid HPAI diagnosis in poultry in Côte d’Ivoire and Senegal (USDA);
- Providing equipment and training in use of real-time RT-PCR to diagnose human cases of avian influenza to Kenya, Angola, South Africa, Tanzania, Madagascar, Zambia, Democratic Republic of the Congo, Republic of the Congo, Uganda, Ethiopia, Central African Republic, Nigeria, and Senegal (HHS/CDC), and Burkina Faso, Côte d’Ivoire, Djibouti, Ghana, Mali, and Sierra Leone (DoD-GEIS/NAMRU-3);
- Supporting FAO avian influenza surveillance training for Southern African Development Community (SADC) member countries (USAID);
- Providing and equipping five Biosecurity Level 2 laboratories, one in Kenya, three in Cameroon and one in Uganda to increase laboratory-based surveillance capacities (DoD-GEIS/USAMRU-K); and
- Supporting trapping and testing of 2648 wild birds during the 2005/06 - 2007/08 migratory seasons in Kenya’s Rift Valley (DoD-GEIS/USAMRU-K & NAMRU-3, HHS/CDC).

U.S. ASSISTANCE FOR RESPONSE AND CONTAINMENT INCLUDES:

- Conducting integrated rapid response team training in 32 sub-Saharan African countries (HHS/CDC);
- Deploying more than 32,000 sets of PPE as well as decontamination kits for outbreak response and surveillance efforts (USAID, USDA);
- Expanding infection control capacity in hospital and farm settings (HHS/CDC, USAID);
- Funding, through FAO and OIE, the Emergency Center for Trans-Boundary Animal Diseases Crisis Management Center, which deploys multilateral rapid response missions in sub-Saharan Africa (USDA, USAID);
- Conducting response training for military and civilian government officials in Côte d’Ivoire and Burkina Faso (DoD-GEIS/CDHAM);
- Supporting training in safe and effective PPE use, and supplying non-medical commodities for outbreak surveillance, investigation and response in Burkina Faso, Cameroon, Côte d’Ivoire, Niger, Nigeria and Togo (USAID);
- Delivering diagnostic equipment, reagents, rapid test kits, disinfectants, cleaning and disinfection kits and other commodities to laboratories in Côte d’Ivoire, Kenya and Senegal (USDA); and
- Providing HPAI diagnostic reagents to six West African countries (USDA).

For further information, visit the U.S. Government’s official website www.pandemicflu.gov.

This region encompasses: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Republic of the Congo, Côte d’Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe.